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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/875,204	06/05/2001	Herbert Heyneker	018501000120	6403

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WASHINGTON, DC 20005

EXAMINER

LUDLOW, JAN M

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 08/12/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/875,204

Applicant(s)

HEYNEKER ET AL.

Examiner

Jan M. Ludlow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 June 2005.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47-63 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 05 June 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

4. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation

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under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

5. Claims 47-49, 51-52, 56-57, 60-62 are rejected under 35 U.S.C. 102(b) as being anticipated by Harris et al (USP 4,871,683).

Harris et al disclose a reaction system substantially as claimed. The system comprises a carousel 12 with a plurality of reaction mounts 20 holding solid support (filter 22 or other supports (col. 4, line 26)) in well 58 arranged on the radius of the carousel, a rotator 74, 76 that rotates the carousel step-wise around the axis, a fluid delivery system 100 that delivers liquid to the reaction well, a drain system 112, 114 that drains the liquid by differential pressure from the well, optical analyzer (col. 6, lines 50-65), temperature control (col. 7, lines 25-30), and a programmable digital computer that controls the system 162 (columns 3-7, Figs 1, 4-5). The through hole 60 in the carousel which holds the reaction mount 20 constitutes the instant conduit and the portion below support 22 constitutes the chamber. In Figures 2 there is a collection volume (instant chamber) having ribs 44, 46 in it in element 18 below the reaction mount 20, which volume is also within the carousel as shown in Figures 4, 5. Alternatively, the insertion of part 18 into the carousel "forms" the claimed conduit and chamber in the carousel. Outlet 40 protrudes from the carousel as claimed. A plurality of drain lines connected to drain receptacles 112, 149 as claimed are shown in figures 4-5, col. 6, lines 19-68. Differential pressure is by e.g., air pressure from pump 118, 148 or gravity.

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6. Claims 50, 53-55, 58, 59, 63 are rejected under 35 U.S.C. 103(a) as being obvious over Harris as applied to claims above and further in view of Raysberg et al (USP 5,106,583).

Harris fails to teach plural wells per mount or radially moveable dispense heads or movement of the drain receptacles 112, 149.

Raysberg et al teach a carousel 19 with a plurality of reaction mounts with reaction wells 3 arranged on the radius of the carousel, a rotator that rotates the carousel step-wise around the axis (column 4, lines 32-41), a fluid delivery system 33 that delivers liquid to the reaction wells, a drain system 35 that drains the liquid by differential pressure from the wells, a programmable digital computer that controls the system 153 (columns 3-7, Figs 1, 4-5). The fluid delivery system is moveable radially as shown at arrow 113 of Figure 1d, and into and out of engagement with the mount (col. 2, lines 40-50).

It would have been obvious to provide plural reaction wells in a sample mount of Harris as taught by Raysberg in order to increase carousel capacity. It would have been obvious to make the dispenser of Harris radially moveable as taught by Raysberg in order to access the mounts and/or remove the dispenser from the carousel as shown by Raysberg. It would have been obvious to move the drain 112 of Harris with respect to the carousel in order to use vacuum instead of or in addition to pressure to drain the mounts as taught by Raysberg.

7. Claims 47-49, 51-52, 56-57, 60-62 are rejected under 35 U.S.C. 102(e) as being anticipated by Feygin US006890491.

Feygin teaches carousel 64 with conduits 22 forming a cavity beneath reaction mounts 10 having drainage holes 15. Exit ports 29 on the carousel communicate with engagement ports 28 for drainage. Plural dispensing stations 32 communicate with the reaction mounts via table 66. Temperature controller 70 is provided. An optical sensor may be provided to monitor whether an appropriate vessel for synthesis is present (meeting the broad limitation of "adapted to analyze ... synthesis").

8. Alternatively, claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Feygin as applied to claim 56 above, and further in view of Harris.

Feygin fails to teach analyzing the reaction.

The teachings of Harris are given above.

It would have been obvious to provide a reaction optical detector in Feygin in order to monitor reactions in a carousel reaction system as taught by Harris.

9. Claims 50, 53-55, 58, 59, 63 are rejected under 35 U.S.C. 103(a) as being obvious over Harris as applied to claims above and further in view of Feygin et al (USP 5,106,583).

Feygin fails to teach plural wells per mount or radially moveable dispense heads or raising/lowering of the drains.

Raysberg et al teach a carousel 19 with a plurality of reaction mounts with reaction wells 3 arranged on the radius of the carousel, a rotator that rotates the carousel step-wise around the axis (column 4, lines 32-41), a fluid delivery system 33 that delivers liquid to the reaction wells, a drain system 35 that drains the liquid by differential pressure from the wells, a programmable digital computer that controls the

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system 153 (columns 3-7, Figs 1, 4-5). The fluid delivery system is moveable radially as shown at arrow 113 of Figure 1d, and into and out of engagement with the mount (col. 2, lines 40-50).

It would have been obvious to provide plural reaction wells in a sample mount of Feygin as taught by Raysberg in order to increase carousel capacity. It would have been obvious to make the dispenser of Feygin radially moveable as taught by Raysberg in order to access the mounts and/or remove the dispenser from the carousel as shown by Raysberg. It would have been obvious to raise/lower the drains of Feygin with respect to the carousel in order to use couple the vacuum to drain the mounts as taught by Raysberg.

10. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

11. Claims 47-48, 50-52, 56-61 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of U.S.

Patent No. 6264891. Although the conflicting claims are not identical, they are not

patentably distinct from each other because the limitations of the instant claims are found within the narrower patented claims.

12. Applicant's arguments filed May 23, 2005 have been fully considered but they are not persuasive.

13. The rejection under 35 USC 112, second paragraph concerning "adapted to" language has been withdrawn because applicant is no longer arguing that such language makes the claims patentable or that the language positively recites the reagents. The claims have been interpreted as they are written, i.e., that the claimed structure must simply be capable of such use, not that sources of such reagents are provided. The remaining rejections under 35 USC 112, second paragraph are overcome by the amendment.

14. Applicant argues that Harris does not teach a conduit forming a chamber below a corresponding reaction mount because part 20 is an upper section of a capsule, but the instant claims do not preclude defining the reaction mount as the examiner has done, and there is no preclusion of the lower section 18 below the reaction mount 20 in the instant claims. Applicant argues that passage 40 is not formed by a "liquid conduit formed within a carousel" because passage 40 is formed prior to installation on the carousel, but the examiner maintains that in this alternative interpretation, installation is a manner of forming the liquid conduit in the carousel. Applicant argues that element 60 is a restraining means formed by holes 62, which is in agreement with the examiner's interpretation of element 60 as a through hole. Applicant argues that Harris does not teach that the "restraining means 60 forms a chamber below corresponding capsule

14," but it is not surprising that the reference does not contain this specific language, nor has the examiner argues this point. Applicant argues that there is no chamber below the reaction mount in Harris because the lowest end of lower section 18 is below the lowest end of chamber 60, but, again, applicant is relying upon an interpretation of the capsule comprising elements 20 and 18 as corresponding to the instant reaction mount, whereas the examiner relies upon element 20 as the reaction mount. Applicant has not pointed to any claim language that makes the interpretation of the examiner invalid, but rather posited an alternative interpretation. The examiner emphasizes that the existence of element 18 coupled to reaction mount 20 is not precluded by the instant claims. Applicant argues that the restraining means 60 does not form a passage 40 below an upper section 20, but the examiner has not argued that it does. The examiner has argued that either the bottom portion of through hole 60 or the portion of 18 below filter 22 constitutes the liquid conduit and chamber below the reaction mount 20.

15. Applicant argues that Raysberg does not teach a liquid conduit forming a chamber below the reaction mount, but Raysberg has not been relied upon for such teaching.

16. The double patenting rejection has not been overcome.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jan M. Ludlow whose telephone number is (571) 272-1260. The examiner can normally be reached on Monday-Thursday, 11:30 am - 8:00 pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill A. Warden can be reached on (571) 272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jan M. Ludlow
Primary Examiner
Art Unit 1743

Jml
August 2, 2005